



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,961	11/24/2003	Cary Lee Bates	ROC920030211US1	5209
30206	7590	12/20/2006	EXAMINER	
IBM CORPORATION ROCHESTER IP LAW DEPT. 917 3605 HIGHWAY 52 NORTH ROCHESTER, MN 55901-7829			WEI, ZHENG	
			ART UNIT	PAPER NUMBER
			2192	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	12/20/2006	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/720,961	BATES ET AL.	
	Examiner	Art Unit	
	Zheng Wei	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 September 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,3-8,10-13 and 15-18 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1,3-8,10-13 and 15-18 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 21 September 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>09/21/2006</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. This office action is in response to the amendment filed on 09/21/2006;
2. The 35 U.S.C 101 rejection of claim 13 is withdrawn as Application amended the claim.
3. The 35 U.S.C 112 first paragraph rejection of claims 1-18 are withdrawn in view of the Application's amendment and further review the specification.
4. Claims 2, 9 and 14 have been canceled;
5. Claims 1, 3-8, 10-13 and 15-18 have been amended;
6. Claims 1, 3-8, 10-13 and 15-18 remain pending and have been examined.

Information Disclosure Statement

7. The new information disclosure statement filed 09/21/2006 has been placed in the application file and the information referred to therein has been considered.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 3-8 and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller (Robert C. Miller, Lightweight Structure in Text, May 2002).

Claim 1:

Miller discloses a method for developing source code for a computer program, comprising the steps of:

- generating a plurality of source code statements in a source code file, said source code file being compilable into object code of said computer program (see for example, p.228, figure 9.6, browser pane and related text, "java code");
- automatically maintaining a record of status of each respective source code statement (see for example, p.238, section 9.2.2 Simultaneous Editing Algorithm, p.238, line 20-p.239, line 9, "record" and "Feature generation", "Hypothesis generation", "Update");
- editing a first source code statement of said plurality of source code statements to produce an edited first source code statement (see for example, p.226, section 9.1.2, Simultaneous Editing Mode, Figure9.4, dialog pane and "start editing" button and related text);
- automatically determining whether one or more copies of said first source code statement exist within said source code file from said status of each respective source code statement, each of said first source code statement and copy of said first source code statement occupying a different respective location within said source code file and being compilable together into said

- object code of said computer program (see for example, p.226, section 9.1.2, Simultaneous Editing Mode, lines 19-21, "Now, when the user makes a selection in one record, the system automatically infers exactly one selection in every other record") ; and
- responsive to said automatically determining step, automatically propagating changes made by said editing step to said one or more copies of said first source code statement (see for example, p.228.figure 9.6 and figure 9.7 and related text, "deletes this selection").

Claim 3:

Miller discloses the method for developing source code for a computer program of claim 1, wherein said automatically propagating step comprises:

- automatically displaying said changes made by said editing step to at least one said copy of said first source code statement (see for example, p.226, section 9.1.2, Simultaneous Editing Mode, lines 19-21, "Now, when the user makes a selection in one record, the system automatically infers exactly one selection in every other record"); and
- soliciting user confirmation of said changes (see for example, p.228, figure 9.6, buttons "go" and "clear").

Claim 4:

Art Unit: 2192

Miller further discloses the method for developing source code for a computer program of claim 1, wherein said status of each respective source code statement comprises data indicating whether the respective source code statement has been verified (see for example, Chapter 10, Outlier Finding, p.256, section 10.3, Unusual Matches Display, lines 5-6, "In simultaneous editing, outlier finding is used behind the scenes to direct the user's attention to possible error.", also see p.257, figure 10.4 and related text).

Claim 5:

Miller also discloses the method for developing source code for a computer program of claim 4, wherein said data indicating whether a respective source code statement has been verified indicates whether the respective statement has been verified (match/mismatch) as part of a compilation process for compiling source code into object code executable by a computer system (see for example, p.258, lines 13-16, "When mismatches are displayed, the user can search for both kinds of bugs in a pattern: false negatives as well as false positives.")

Claim 6:

Miller further discloses the method for developing source code for a computer program of claim 1, further comprising the steps of:

- receiving a user command to copy a second of said plurality of source code statements to a different location within said source code file (see for example, section 9.1.2 Simultaneous Editing Mode, lines 39-40, "The user is

ready to enter the return type of the get method.", "copy-and-paste must be used");

- responsive to receiving said user command, automatically determining whether said second source code statement has been previously verified from said status of each respective source code statement (see for example, p.256, section 10.3, Unusual Matches Display, lines 18-22, "Each match is plotted as a small block"); and
- if said second source code statement has not been previously verified, automatically warning a user that said second source code statement is unverified (see for example, p.257, figure 10.4, and related text, "Strong outliers appear noticeably alone in this visualization").

Claim 7:

Miller discloses a method for developing source code for a computer program, comprising the steps of:

- generating a plurality of source code statements in a source code file, said source code file being compilable into object code of said computer program (see for example, p.228, figure 9.6, browser pane and related text, "java code");

Art Unit: 2192

- automatically maintaining a record of status of each respective source code statement (see for example, p.238, section 9.2.2 Simultaneous Editing Algorithm, p.238, line 20-p.239, line 9, "record");
- receiving a user command to copy a first of said plurality of source code statements to a different location within said source code file to create a second source statement at said different location, said second source code statement being identical to said first source code statement, each of said first source code statement and said second source code statement being compilable together into said object code of said computer program (see for example, section 9.1.2 Simultaneous Editing Mode, lines 39-40, "The user is ready to enter the return type of the get method.", "copy-and-paste must be used");
- responsive to receiving said user command, automatically determining whether said first source code statement has been previously verified from said status of each respective source code statement (see for example, p.256, section 10.3, Unusual Matches Display, lines 18-22, "Each match is plotted as a small block"); and
- if said first source code statement has not been previously verified, automatically performing at least one action in response to determining that said first source code statement is unverified (see for example, p.257, figure 10.4, and related text, "Strong outliers appear noticeably alone in this visualization").

Claim 8:

Miller further discloses the method for developing source code for a computer program of claim 7, wherein said step of automatically performing at least one action in response to determining that said first source code statement is unverified comprises issuing a warning message to a user (see for example, p.257, figure 10.4, and related text, "Strong outliers appear noticeably alone in this visualization").

Claim 10:

Miller also discloses the method for developing source code for a computer program of claim 7, wherein said step of automatically determining whether said first source code statement has been previously verified comprises automatically determining whether said first source code statement has successfully completed some portion of a compilation process for compiling source code into object code executable by a computer system (see for example, p.256, lines 15-22, "the Unusual Matches window", "Blocks near the left side of the window represent typical matches...").

Claim 11:

Miller further discloses the method for developing source code for a computer program of claim 7, wherein said status of each respective source code statement comprises

data indicating whether the respective statement was copied from another source code statement (see for example, p.238, section 9.2.2 Simultaneous Editing Algorithm, p.238, line 20-p.239, line 9, "record", "Feature generation", "Hypothesis generation", "Update").

Claim 12:

Miller also discloses the method for developing source code for a computer program of claim 11, wherein said step of automatically determining whether said first source code statement has been verified comprises automatically determining whether said first source code statement was copied from another statement which has been previously verified (see for example, p.238, section 9.2.2 simultaneous Editing Algorithm, lines 30-21, "Hypothesis generation takes the positive examples and the feature list and searches for a region set consistent with the examples.").

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 13 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (Robert C. Miller, Lightweight Structure in Text, May 2002)

Claims 13 and 15-18:

Claims 13 and 15-18 claim a computer program product for developing source code for a computer program, which is the product version of the method claims as discussed in claims 1 and 3-6 above respectively. Therefore, these claims are obvious over Miller, because it is well known in the computer art to practice and/or produce such a program product for carrying out the acts/steps of such method by a typical computer.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
13. Applicant's arguments with respect to claims 1, 3-8, 10-13 and 15-18 have been considered but are moot in view of the new ground(s) of rejection.
14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory

Art Unit: 2192

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zheng Wei whose telephone number is (571) 270-1059. The examiner can normally be reached on Monday-Thursday 8:00-15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571- 272-1000.

Art Unit: 2192

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ZW



TUAN DAM
SUPERVISORY PATENT EXAMINER